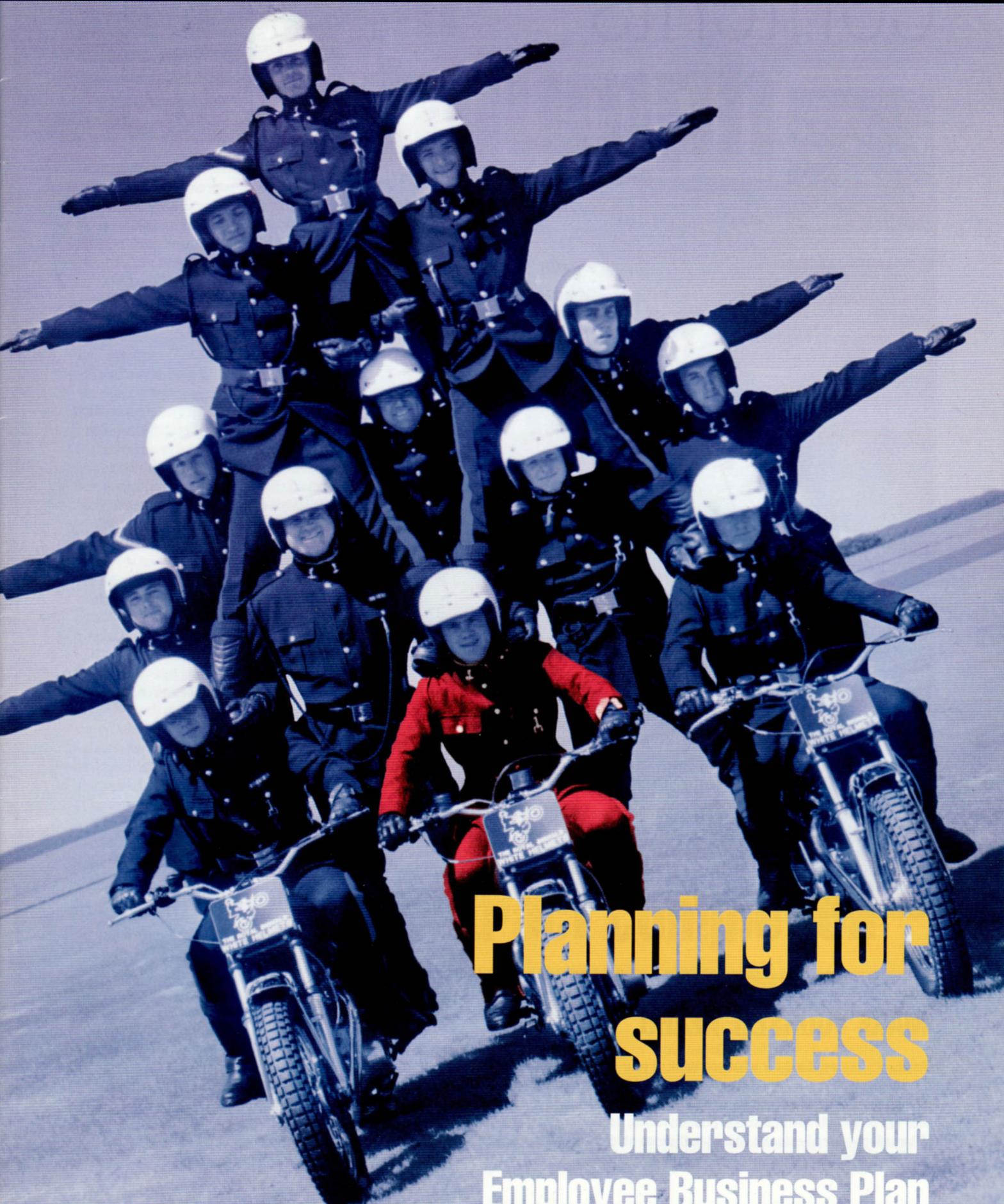


BAE SYSTEMS

VISION

The magazine for Avionics people | February 2003



Planning for SUCCESS

Understand your
Employee Business Plan

contents



Cover

Issue 26. Planning for success



3 Avionics News

Find out about the great partnership at work on the T-50 Golden Eagle Jet Trainer

4&5 The Vision Interview

Campaigns Manager John Hymns explains the importance of the HIDAS contract



6 Business Update

News in brief from around Avionics

8&9 The Vision Feature

2003 – the company's business plans



10 Your Shout

Nick Franks answers your burning questions

11 Our Products

Avionics' SIGMA camera has revolutionised the world of thermal imaging. Discover how it works



12&13 Employee Opinion Survey

Vision looks at the results of the company's sample survey and what changes it has in store

14 Our Community

Find out the winners of 2002's National Challenge

Points of View



Gavin Williamson,
Executive Vice President
Land, Sea and Missile
Systems, BA&CR

Listening to our customers is the key to success in business and often we can learn more listening to them than you may imagine. So, if you think that an 'OODA loop' is something your kids have for their breakfast, read on:

'The battlefield is a scene of constant chaos. The winner will be the one that best controls that chaos, both his and that of the enemy.'

Napoleon Bonaparte

For Avionics, changing circumstances – moving goalposts – are a daily reality. We are all fighting our own particular battles against a myriad of problems that seem aimed at defeating us and it's sometimes difficult to feel capable and powerful enough to achieve our aims. However, there is every reason to believe that we can be successful provided we can adapt to the changing environment better than our competitors.

Our major customer has to deal with a rapidly changing environment on the battlefield. Its ability to cope in the friction of battle against an enemy equally determined to prevail is critical to a successful outcome. Although most of us cannot imagine the pressures of real war, we can try to understand and perhaps learn something from the principles that prepare the military to fight and win. The military prepares for conflict by producing fighting power which is based on three components: conceptual (thought), physical (means to fight) and moral (motivation and leadership).

Even the cynics will acknowledge the presence of these components within our business, and how well we address them will be the difference between our success and failure.

The military 'Manoeuvrist' approach calls for a style of command that promotes initiative, speed of action and a determination to succeed. The goal is to get inside the enemy's 'OODA loop' – the Observe, Orient, Decide and Act cycle – and destroy their cohesion. The Commander concentrates on selection and maintenance of the aim, concentration of forces, economy of effort and morale.

In business, selection and maintenance of the aim is the development and application of a clear business strategy; concentration of forces could be the application of resources targeted at winning a particular programme in line with the overall business strategy; and economy of effort might be the creation of centres of excellence. Morale is achieved through good leadership.

Above all, do not underestimate the importance of the determination to succeed. It is key – just ask Wellington.

MAKE YOURSELF HEARD

As always, we want to hear what you think of your magazine. If you have any ideas for stories, features or interviews please contact Fran Simpson, Internal Communications Manager, at frances.simpson@baesystems.com, call +44(0)1634 203 771 or write to her at BAE SYSTEMS Avionics, Rochester, Kent, ME1 2XX. Alternatively, e-mail external Editor Ian Dickson at idickson@item.co.uk or call on +44(0)20 7440 9904.

First flight triumph

An advanced supersonic jet trainer has successfully completed its first flight, reinforcing the strong working partnership between BAE SYSTEMS and Canada's DY4 Systems.

The T-50 Golden Eagle Jet Trainer is the new aircraft to train future pilots to fly current and next generation fighters such as the F-16, F-22 and the Joint Strike Fighter. In development for the Royal Korean Airforce by Korean Aerospace Industries (KAI) and Lockheed Martin, the T-50 recently completed its first flight at the KAI facility at Sacheon, South Korea.

BAE SYSTEMS supplies the T-50's Head-Up Display (HUD) and Integrated Mission and Display Computer (IMDC). The new HUD has been derived from the type used on the F-16 and builds on the pedigree the company has as a supplier of HUDs.

The IMDC is a new development and forms the heart of the display sub-system on the T-50. It is responsible for driving the HUD and is a highly integrated mission computer employing Commercial Off the Shelf Technologies (COTS) repackaged to meet the demanding requirements of the T-50 application.

The COTS-based modules are supplied by DY4 Systems and developed in partnership with BAE SYSTEMS. DY4 is recognised as a leader in the application of COTS technologies in extreme environments and this development further enhances its position, employing high density packaging techniques and innovative module design to address the challenges of the T-50 application.

The two companies have worked together to



maximise the manufacturability of the modules. This ensures that production is able to deal with the high manufacturing volumes anticipated.

Engineers from both companies have been pooling their capabilities to support the continued deployment of COTS modules in an

increasing number of Avionics Systems' products. This is seen as a step forward in the development of a long-term Integrated Project Team (IPT) that will look at product development and the alignment of route maps, capitalising on the strengths of both companies to produce world-class products.



Contract completion

The sixth and final Thermal Imaging & TV Airborne Laser Designator (TIALD) pod was delivered to the UK Ministry of Defence in October.

Used on Tornado, Harrier and Jaguar front line aircraft, the laser designator is used to accurately guide Laser Guided Bombs to their target. In addition to the six pods, module spares have also been delivered as part of the contract.

Hugh McWilliams, Project Leader TIALD 400, says: 'Sensor Systems Division SSD is currently

involved in bidding for the total support of TIALD. The seven-year contract will see SSD support all TIALD main and test equipment on a guaranteed availability basis and will include the management and resolution of all obsolescence issues.'

The TIALD team in Edinburgh is also currently under contract for a major upgrade of the TIALD pod from the current series 400 to series 500. This contract is currently in the development phase with the first pod scheduled for rig and flight trials at Boscombe Down began in January 2003.

An inspiring story of SUCCESS

Campaigns Manager John Hymns talks about HIDAS, the ground-breaking helicopter defence system from Avionics

With a BAE SYSTEMS career that has spanned more than 23 years, John Hymns thrives on the challenge of fulfilling the expectations of demanding customers.

And finds that this task is made easier by having high calibre people to support him. 'Throughout my time with the company, I've always found that the enthusiasm and dedication of the people I work with makes each day worthwhile, enjoyable and achieves results,' says John.

'Six years ago I transitioned from the project world into the business development world and my key task was to rekindle our business relationship with Westland Helicopters with regard to Electronic Warfare. We were successful in making our way onto the EH101 and the Lynx before the signing of the UK Apache deal.

'My affinity for helicopters grew from there and my role became centred on developing new business for our products for the helicopter market, such as the Helicopter Integrated Defensive Aids System (HIDAS) and two of its sub-systems: the Sky Guardian 2000 Radar Warning Receiver and the Series 1223 Laser Warning Receiver.'

HIDAS is now the self-protection system of choice for the Kuwaiti fleet of Longbow Apaches and the British Army's AH-1 Apache. At a cost of at least \$20 million for each Apache – rising to \$30 million or more when fully laden with equipment – it comes as no surprise that today's military forces are keen to protect one of their most valued assets.

'War today seems to be conducted in small, regional conflicts which requires rapid deployment of forces, meaning that helicopters are becoming more important, more capable, more influential and more expensive,' believes John. 'In particular, combat helicopters which are actually put in harm's way must be very automated to reduce pilot workload and must be heavily protected to allow concentration on combat tasks. HIDAS is the most advanced self-protection suite available for helicopters today and is crucial for mission success.

It has been relatively straightforward to enthuse the market on HIDAS since the British Army committed to it for its Apache. Most users can understand the concept of protecting their high value and strategic assets and the UK is seen as an intelligent user, so its lead is often followed.

'Most users, though, don't fully comprehend how to operate a sophisticated Electronic Warfare suite nor understand why HIDAS is more capable than some of the older or more basic systems available. Explaining this takes substantial efforts from a few key people within Avionics and is what takes up most of my day,' says John.

HIDAS is made up of four sub-systems which are integrated by a fifth element, the Defensive Aids Suite controller (DASc). Avionics makes two of the sub-systems – the Radar Warning Receiver and Laser Warning Receiver – as well as the

'There is a significant market potential for HIDAS, with more than 10 countries currently interested in buying new attack helicopters'

DASc. BAE SYSTEMS Information and Electronic Warfare Systems in North America makes the Missile Warning System and the last sub-system – the Countermeasures Dispensing System – is bought in.

There is a significant market potential for the company's HIDAS, with more than 10 countries currently interested in buying new attack helicopters and a number of existing Apache users who are keen to upgrade. 'This represents a significant market potential for HIDAS and features very highly in the Avionics Business Plan.

'Avionics, its suppliers, the UK MoD, the British Army and the Apache Integrated Project Team are strong, focused and ready to tackle the market head-on,' says John.

The HIDAS programme for the UK Apache, primed by Westland Helicopters, has been running since 1997 and the majority of the systems have now been delivered. Boeing, who makes all the other Apaches, can produce or re-manufacture up to 10 aircraft every month, with a lead time of around two and a half years. John believes that BAE SYSTEMS' future contracts for HIDAS would have to mirror such a capability.

Added to that are the current support plans for the UK Apache which is planned for at least 25 years' service and enhancement programmes which will see a modernised Apache with additional self-protection capabilities planned for service around 2007.

HIDAS may even revolutionise the way battles are fought in future. As Colonel David Husband was quoted as saying in Defence Helicopter: 'HIDAS will provide our aircraft with the protection that may sway the decision as to whether to be deployed into theatre in the first place, let alone in anger.'



News in brief

Handover celebration

The last 105mm Light Gun to be converted by the company to carry the Laser Inertial Artillery Pointing System (LINAPS) was formally handed over to 7 (Sphinx) Battery of 29 Commando Regiment, Royal Artillery, at Edinburgh Castle in December.

The company was represented on the day by Sir Charles Masefield, BAE SYSTEMS Vice-Chairman, and Brigadier Chris Brown, Director, Royal Artillery. At Edinburgh Castle, guns are fired at one o'clock every day as part of an age-old tradition. To mark the successful handover, 7 Battery of the Royal Artillery was given this unique privilege and fired the 105mm Light Gun on the hour.

Avionics success at SPIRE 2002

The seventh annual SPIRE (Supporting Process Improvement Realisation and Evaluation) conference took place at the beginning of October on the theme 'Integrating Process Improvement Across The Enterprise'. Managers and engineers from BAE SYSTEMS, AMS, MBDA, Astrium, and Aerosystems International met at the Hanover International Hotel in Hinckley, UK, where they were given 38 presentations covering a range of related activities and shown exhibitions that promoted engineering excellence and the sharing of best practices.

Supporting the RAF

Avionics has won a contract to provide Foxhunter Radar support to the RAF. The Radar Sustainment Programme (RSP) will give the RAF a guaranteed availability of assets at its main operating bases until the radar goes out of service in nearly eight years time. Sensor Systems Division, based in Milton Keynes, will provide a line replacement unit within an hour to the relevant RAF base when required.

Issue sharing the SMART way

Avionics hosted a SMART Support Forum on HMS Belfast, the WWII warship moored on the River Thames in London. The event was held to share best practice across a number of platforms and services and to allow BAE SYSTEMS to be central in Performance Based Logistics' formation of SMART support concepts.

Live flight trials

The Missile Warner Equipment started and concluded its flight trials this month. The trials consisted of five consecutive days with some live shell firings at DA4 aircraft.

Eurofighter HUD deliveries

The Eurofighter Head-Up Display team delivered 10 HUDs, two more than were forecast to the customer, and more than have ever been delivered in a single month.

Flying visits



Two Electronic Warfare Division (EWD) teams have visited Royal Air Force (RAF) bases, where they learnt how the equipment they make is used and maintained.

Thirty members visited RAF Marham, home to several squadrons of Tornado GR4 and a Canberra photo-reconnaissance squadron.

The team, mostly from customer support, was given several presentations on the role and organisation of the base and was briefed on typical flying operations by a senior Tornado pilot.

Employees also visited the avionics centre to view maintenance facilities and had a guided tour of a GR4 aircraft.

Another EWD team visited the Harrier base at RAF Cottesmore in Rutland and the nearby supporting base at RAF Wittering. The team was given operational briefings and toured the base and its aircraft.

All of the visits were organised to give employees an insight into how the equipment they produce and the support they provide is used by the RAF.

Digging the roots of success

Construction of Avionics' new facility at Capability Green Business Park in Luton, UK, has started.

The beginning of the development was marked by an official ceremony attended by the Mayor of Luton, Councillor Raja Saleem, and the Leader of Luton Council, Councillor Bill McKenzie.

Employees from Stanmore represented the company at the ceremony, which commenced with Doug Baxter, Electronic Warfare Division Managing Director, and representatives from Luton Borough Council digging the first turf from the field.



Excellent ideas are rewarded

Electronic Warfare Division's human resources (HR) team won an award at this year's Delivering HR Excellence ceremony.

It won a Service Excellence award for programmes and initiatives that have been implemented to facilitate the division's relocation to Capability Green, Luton, UK.

Delivering HR Excellence is an annual event in which global BAE SYSTEMS HR departments compete to share best practice. The competition ensures that HR delivery throughout the company is aligned to external benchmarking and gives clear recognition to those businesses who demonstrate solutions to a particular business difficulty.

World first for Sensor Systems

The E-Scan radar team, part of Capability Management, has successfully integrated the company's first Active Electronically Scanned Antenna (AESA) based radar system at Sensor Systems Division in Edinburgh.

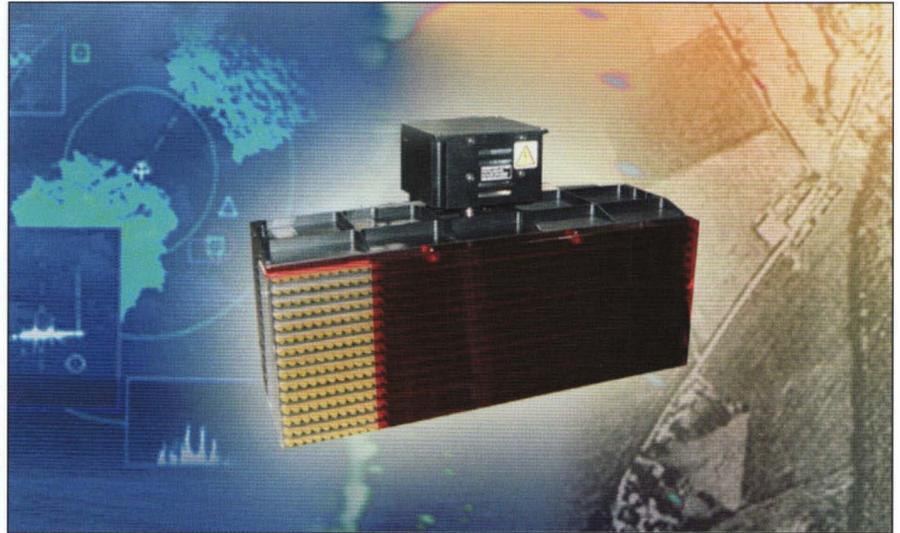
The radar, known as Seaspray 7000E, is targeted initially at the maritime surveillance market, primarily helicopter platforms. It will provide customers with significant performance and through-life cost benefits at prices less than competitors' conventional, mechanically-scanned radars.

The flexibility of the technology and the capability of the system enables a wide range of functionality. Seaspray 7000E offers air-to-air detection and tracking as well as land and naval surveillance for helicopters, UAVs and fixed wing aircraft, enabling battlefield surveillance and maritime patrol and surveillance.

It is significantly better than current generation, tube based, high peak power, pulse compression airborne surveillance radars. Comprising only the two line replaceable units, COTS processor and AESA, Seaspray 7000E is 25 per cent lighter than current systems, is more reliable, and offers superior multi-mode performance.

David Graham, E-Scan Director, says: 'The reliability gains completely change the nature of the required maintenance regime, offering significant improvements in operators' through life costs.'

'A small multi-disciplinary Integrated Product Team started the detailed design work at the



Seaspray 7000E -- a lightweight, multi-role, surveillance radar

start of 2002 and overcame a number of technical and procurement problems to deliver the prototype ahead of schedule. The programme was so advanced that the decision was made to launch the product based on this technology at Farnborough 2002. Potential customers showed considerable interest in the radar's performance, technology and support benefits. The focus for 2003 is now on capturing orders and completing product development and qualification.'

The radar is now transmitting over the Firth of Forth and successfully tracking and detecting airborne and naval targets.

Career development made easy

The work to complete the BAE SYSTEMS Engineering and Project Management 'Developing You' career framework is now complete and available.

The requirement for an aid to career development has been visible for some time through the Employee Opinion Survey results and therefore it has been a high priority activity within Avionics.

This framework gives employees the ability to plan their career and identify personal development needs.

So what next? As part of your Performance Development Review this year, you can complete a profile assessment which will capture your existing knowledge and experience. This can be done on the Skills, Knowledge and Training Environment (SKATE) tool, which recently won a Silver Chairman's Award. A comparison of your competencies and skills against those required for your current and prospective roles is then performed, allowing you and your manager to create the development plan.

More information is available by clicking on the business plan button on the Avionics Group homepage.

Similar career and development frameworks are currently under development for the other functions and will be launched soon.

The Future of Lynx

Westland Helicopters visited Avionics recently to launch the Defensive Aids System (DAS) programme for Future Lynx.

Doug Baxter, Electronic Warfare Division Managing Director, and Paul Beck, BA&CR Vice President Helicopters, welcomed the representatives to Stanmore.

BAE SYSTEMS is competing for this programme and a final decision is due in June 2003. Future Lynx replaces the current Lynx aircraft being operated by the British Army and the Royal Navy and it's expected that over 100 aircraft will be built.



Artist's impression of BLUH and SCMR

The Vision Feature

OUR VISION
TO BE THE LEADING
SYSTEMS COMPANY,
INNOVATING FOR
A SAFER WORLD



2003 – the com

What are Avionics' plans for 2003 and how can you help achieve them?

Do you know what the company's objectives are for 2003? Are you aware how you can help it meet them and do you know where you can find this information?

The Avionics Employee Business Plan (EBP) for 2003 has these answers, and many more. As the company's annual plan, it shows how employees can work together to achieve the success the company needs to stay at the forefront of the avionics market.

The great advantage of this year's EBP is that it will be updated regularly, making sure that it is always highly relevant to all Avionics people – who will have ongoing access to it. Putting the EBP on the intranet makes it possible for everyone to connect with the company's plans. In addition, paper copies are available from local communications teams (see divisional objectives).

Positioning the Avionics Group for the future

Last year was important for Avionics as the organisation was aligned to reflect changes in customer buying strategies and consolidation in the marketplace. This was a significant step in realising a long-term strategy to support customers in meeting the needs of the network centric battlespace – round the clock requirements, adverse environmental conditions and protection in remote and home territories. Real time awareness of the battlespace is vital and the Group has focused resources on strengthening technologies and systems directly related to fulfilling customer operational priorities.

The past 12 months has seen a lot of effort and innovation, but the Group's success was held back by programme delays. In the coming year, Avionics' key priority will be on maintaining focus and improving performance and margin across the Group while implementing its strategy for growth.

Nick Franks, Avionics Group Managing Director, says: 'Performance is key. We will put the business in a much stronger position for the future by cracking the issues we currently have. We have a solid set of plans in place and are well placed to deliver them.'



**OUR PATH TO SUCCESS >
TO BE THE PREMIER
TRANSATLANTIC DEFENCE
COMPANY AND LEAD
SUPPLIER OF PRIME
SYSTEMS SOLUTIONS**

pany's plans

The EBP is designed to inspire each Avionics employee to set personal objectives that support the goals of BAE SYSTEMS, the Avionics Group and its divisions. Divisional priorities for 2003 include:

Sensor Systems Division objectives

- Deliver on sales margin by consistently producing products on time and in budget
- Complete site integration at Edinburgh at the new Crewe Toll facility, which will become fully operational during the year
- Strengthen the order book by securing key orders such as Meteor, Eurofighter Tranche 2 funding, Javelin, follow on DIRCM, Stormshadow and HALO.

Electronic Warfare Division objectives

- Grow the business to achieve doubling of sales, profit and product investment in two years
- Transition EFA, DLH and HIDAS programmes from development to production
- Provide the customer with a quality product and capability on time
- Exploit opportunities in the global self-protection market including export opportunities and support programmes.

Avionic Systems Division objectives

- Exploit advanced technology positions in helmets, displays and vehicle management systems
- Through strategic partnership, exploit existing niche product positions in civil avionics progression towards integrated flight decks, vehicle management systems and autonomous/free flight
- Continue to work with North America to seek opportunities for growth.

BA&CR objectives

- Achieve 2003 order intake budget
- Deploy and embrace new business winning processes
- Provide first class commercial support to the business and its customers
- Implement the improved Customer Relationship Management
- Further improve the quality, accuracy and timeliness of data the division uses
- Improve market and competitor intelligence
- Achieve all these objectives within budget.

To find out more

To access the full EBP online, click on the business plan button on the Avionics Group intranet

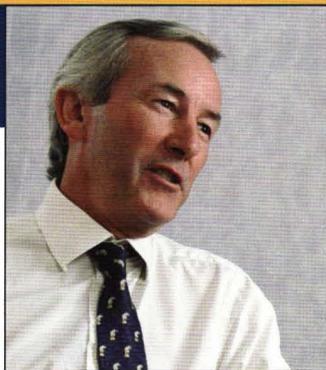
Divisional plans

EWD: Click on the business plan button on the EWD homepage. For those without access, paper copies are available from the communications team (emily.smith@baesystems.com telephone GNET 701 3019). An all-employee briefing during February will also communicate the EBP.

SSD: Click on the business plan button on the SSD homepage. For those without access, paper copies are available from the communications team (jane.macfarlane@baesystems.com telephone GNET 709 5315).

ASD: Further information on the Avionics Systems' business plans for 2003 will be communicated at a series of roadshows during February and March.

BA&CR: Click on the business plan button on the Avionics Group homepage.



Your shout

Nick Franks explains the changes to the Avionics Group

Q Did we achieve our sales and order targets yet?

A We were just short of our sales orders in 2002, mainly because some of our prospects moved to the right and will be accounted for in 2003. However, we were miles off our order targets – a situation we can't afford to repeat this year.

Q When will we find out our business goals for 2003?

A The budget process is currently being finalised and I will be meeting with Avionics senior management in early February to discuss our key actions for 2003. Business goals will then be cascaded through line management and employees will be able to see their business goals in the Employee Business Plan which will be on-line from 6 February 2003.

Q Why are vacancies within BAE SYSTEMS but possibly outside of our site not more widely advertised?

A All company vacancies are available from: <http://internalvacancybrief.togethr.com/>

Q Why do so many initiatives that are set up stop with no reason given? For example, the Buddy system introduced within Basildon in which two visits a month should be carried out by each senior manager.

A According to the intranet page there have only been two visits in the past year.

Q It is important that any initiative we set up is meaningful to the business and that managers deliver what they promise. Please take a situation like this up with your line manager.

Q Given the recently announced changes to the Avionics Group, what impact is this likely to have on the remaining organisation?

A There will really be no changes to the remaining organisation. Central services such as BA&CR, finance and IT will still continue to support ISD, so the only change will be in the way we recover costs.

Q What difference has the new organisation made?

A The changes made to the organisation over a year ago are resulting in a much better focus on the customer. We are now

delivering more products on time which is starting to show benefit in terms of customer satisfaction and opportunities to bid for new work with the customer.

Q It's still not clear why Avionics is being divided up. What is the future for our business?

A The Avionics Group needs to focus on the future needs of two different market sectors and understand the balance of opportunity with the North American and European markets. Avionics is strongly positioned to lead a European Defence Electronic Systems consolidated position in Europe. ASD and ISD need to respond to the convergence of the military and civil sectors and, with our North American business, be able to exploit our products and technology. ISD has now moved into a larger inertial products division so they are well placed to achieve this.

If you've got a question for Nick e-mail your.shout@baesystems.com. All questions will be put to Nick anonymously.

The power of a partnership

Avionics' Human Resources Director Rob Shorricks explains how HR is evolving

BAE SYSTEMS has partnered with Xchanging, an outsourcing specialist, to restructure its HR function and over 70 per cent of the 700 HR employees in the UK have joined the new operation.

Rob says: 'Change is a continual process and innovation and learning is necessary to respond effectively. Restructuring a significant part of the company's HR service provision was a huge step and I believe we will soon see the benefits to the business.'

There have been three main changes that people will have noticed: the introduction of peopleportal, the introduction of a Customer Support Team (CST) and the relocation of some HR people.

peopleportal

Web-based tool which provides HR services to employees through the intranet. It's being launched in stages, with each providing better services and capability. The first stage has been launched and is now available to everyone in Avionics who has access to the internet via Internet Explorer. Currently, employees are able to view their own personal information including, job details, Healthcare, Pension, Save As You Earn, Profit Sharing and Employee Car Scheme.

You need to register on peopleportal before you can access your data, at <http://peopleportal.togethr.com/> 'Everyone should do this in order to ensure their personal information remains up to date. If your information is incorrect,

you can update certain elements yourself, such as your address, or you can ring or e-mail the CST to make the necessary changes. Don't worry, the system is secure and nobody else is able to access your information apart from you and HR,' says Rob. For those who don't have access to a PC in work, provision for access is being made at each site, and this will be communicated locally.

Customer Support Team

The HR CST is based in Preston, Lancashire. All HR Shared Services enquiries from any Avionics employee should now be channelled through the CST by either e-mail on baesystemshr@hr.xchanging.com or telephone on 01772 677277 (internal dialling short code 735 then extension 7277). For pensions enquires there are separate telephone numbers to use. For general enquiries: 01252 383810 and specific BAE SYSTEMS 2000 Pension Plan enquiries: 01772 677200.

How SIGMA works

Avionics' revolutionary SIGMA camera has made headlines as the first European high resolution thermal imager to enter production. **Vision** discovers what makes it so good

Avionics' SIGMA camera is suitable for a wide range of military and paramilitary applications, and has the ability to create a full TV-quality black and white image.

Based on a very large 15.4 x 12.3 mm Cadmium Mercury Telluride (CMT) focal plane array infrared detector, the camera is capable of producing an image with over 32,000 pixel points.

SIGMA can be fitted with a number of lens options to provide different fields of view and detection ranges, enabling it to be used for surveillance and targeting on land, sea and air platforms. Its first major applications are in Mobile Surveillance Vehicles performing border control operations and in the new Titan turret, which is also produced by Sensor Systems Division (SSD). SIGMA can even detect temperature differences as small as 0.01 degrees Celsius, providing clear vision through smoke as well as in total darkness.

Already in large-scale production, over 100 units are expected to be produced by the end of 2003 at Avionics' Basildon and Southampton SSD sites. Each camera sells at around \$100,000. Current customers for SIGMA include the UK Ministry of Defence and a Far East Navy – which will receive its first system this year.

SIGMA works by collecting the infrared (IR) radiation that all objects emit through a special lens and transfers this onto a sensitive detector – in the same way that visible light is collected by a camera lens and focused on light sensitive film.

Roger Smith, Sales and Marketing Manager for



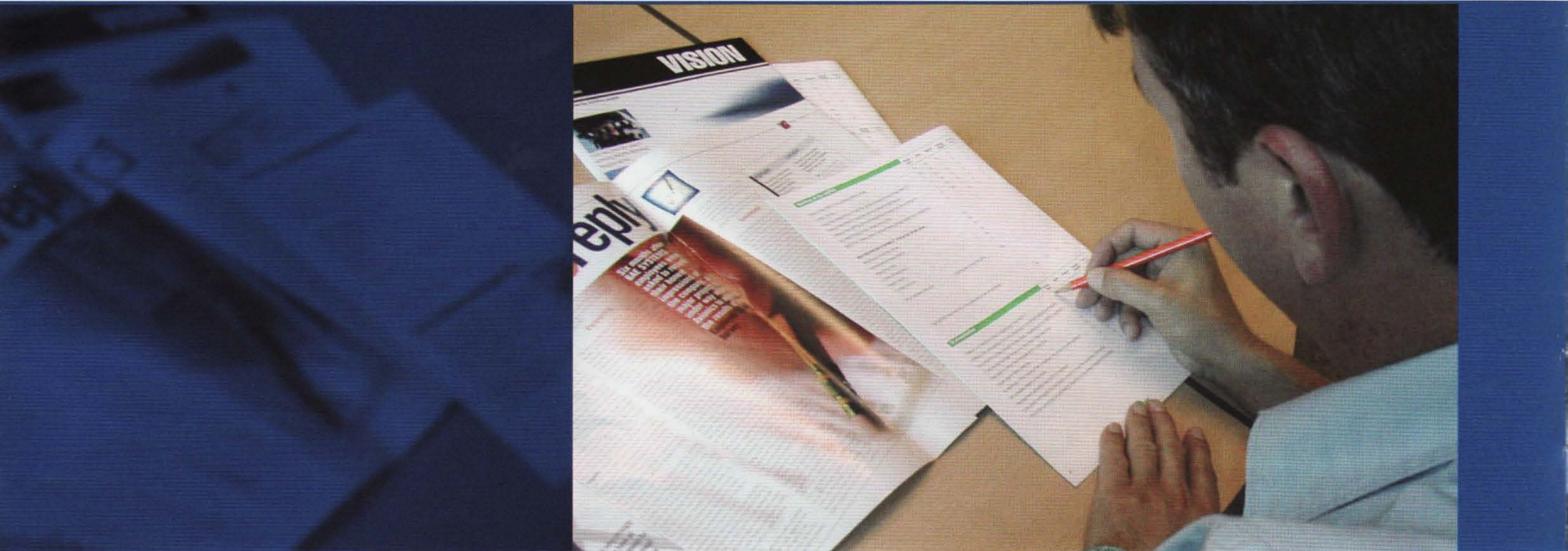
A night-time scene through the 'eyes' of SIGMA

EO Sensors, says: 'The detector converts the IR radiation into electrical charges that create an electronic picture of the scene. This picture is then processed by sophisticated electronics with unique software to form a high quality picture that can be displayed on a monitor.'

The development of the CMT focal plane array detector – known as Eagle – and the processing electronics at Avionics' Southampton and Basildon sites has been the culmination of a three-year development programme by some of the company's highly specialised scientists and engineers.



Avionics' SIGMA camera



Responding to the Employee Opinion

What actions are Avionics taking as a result of the findings of the 2002 sample Employee Opinion Survey?

Do Avionics people understand their roles and how they can contribute to the company's success? Do they feel they have effective leadership? Is the company making best use of employees' skills?

These are just some of the things Avionics needs to ask people so that it can keep its finger on the pulse of employee opinions and feelings – and respond with actions that help to create a high performance business culture.

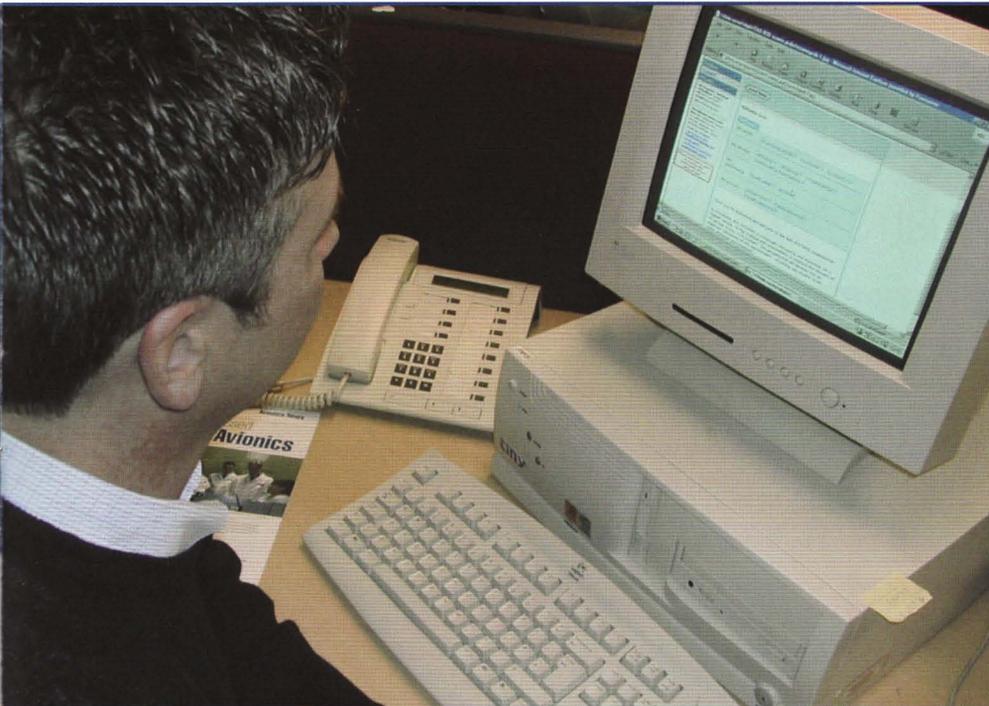
Ten per cent of Avionics employees have been surveyed to assess their opinions on how the company has progressed since the last full Employee Opinion Survey (EOS) in 2001.

This random sample survey is an important tool in assessing whether employees feel the company has moved forward. The good news is

that the results have been mainly positive with notable improvements in customer awareness and employee involvement – which is a real plus at a time when changes are taking place across the business and BAE SYSTEMS has a high media profile.

Rob Shorrick, Avionics Group Human Resources Director, says: 'It's important that Avionics really understands what its employees think if we are to improve the way we work. Employee feedback is vital in ensuring that we have effective processes in place to enable us all to deliver against our business objectives. Not only can we respond to survey findings with constructive actions that will make a significant difference to the business, but there is also evidence that shows better EOS results lead to increased shareholder value.'

Since the 2001 survey there has been progress in a number of areas. As well as improved employee involvement and customer relationships, there have been advances in bringing pay and benefits packages into line. Employee forums, in the form of directors' lunches, focus groups and Joint Consultative Committees (JCC), are in place at all sites to give all Avionics people the opportunity to voice their opinions to management teams. In 2003 we will continue to focus on all our communication channels to assure we gather employee opinion and create dialogue across the company.



Survey 2002

underway in a number of areas that will focus on improving career development. These include a review of the opportunities process – better internal advertising of BAE SYSTEMS vacancies. As well as this, the company has developed management capability in coaching and mentoring and has used Management Resource Review to assist development into management roles. Each function is developing a Functional Career Structure Development Plan, focusing on developing the skills required to deliver value through Avionics' functions.

Further updates on progress of these actions will follow.

Improving Development Opportunities

This is a key priority as it's one of the key results in decline from the last survey. A multi-functional team is working on the development of an Avionics-wide Learning & Development Strategy which will provide: a clear statement of the Avionics Policy on Learning and Development, design and implementation of processes which support the development of all employees – in line with the business needs and personal aspirations and the introduction of tools to support the strategy, policy and process.

The ultimate aim is to deliver a user-friendly process which is clearly linked to the business needs.

Listening to Avionics People

To ensure that employees are properly informed, Avionics needs to appreciate which elements of understanding add value to the business. What do people really want to know and understand to be motivated and engaged in the business's success?

Progress updates

Keep up to date with the latest progress through Team Brief and the intranet via the EOS link on the Avionics Group and Divisional homepages.

EOS 2002 findings: a snapshot

- Ninety four per cent of respondents agreed that they understood who their customers were: an 18 per cent increase since the 2001 survey
- Fifty seven per cent of respondents agreed that they thought it was safe to speak up and challenge the way things are done compared to 50 per cent in 2001
- Seventy six per cent of respondents felt they understood how their job contributed to achieving the business plan: an increase of six per cent since 2001
- Forty three per cent thought that BAE SYSTEMS is a good company to work for, a decline of seven per cent since the 2001 survey
- Sixty seven per cent intended to be working for the company in 12 months' time, a four per cent decline since the last survey
- Forty two per cent thought senior managers take positive steps to improve business performance, a slight two per cent decline.

Delivering the Actions

The survey results have been studied and a team is developing the way forward.

At present, the sample survey has flagged four key areas that need attention: improving performance management, managing career development, improving development opportunities and listening to employees on a regular basis across the business and its

functions. The 2003 HR strategy has a number of workstreams that will ensure these needs are addressed. There will be a Leadership Workshop in early February where the senior management team will be considering the actions and looking for ways to ensure they are a success.

Improving Performance Management

Employees felt that performance was not being managed – from rewarding good work to addressing poor performance. From the sample survey, 28 per cent of respondents answered favourably when asked if poor employee performance issues are addressed effectively where they work, a 13 per cent decline on last year's results. As a result of this feedback, the company will re-focus the Performance Management Workstream of the HR Strategy by working to achieve a common approach to Personal Development Reviews via the peopleportal, improving mechanisms to reward good performance and improving the company's overall ability to manage performance.

Managing Career Development

Only 35 per cent of respondents answered favourably to the question – am I satisfied with career opportunities in BAE SYSTEMS, a decrease of two per cent. Similarly, when asked: I understand how I can develop my career within Avionics – only 32 per cent responded positively. Progress is now

Avionics' Golden champions

Double triumph at Chairman's Awards for Innovation 2002

The division picked up two Gold Chairman's Awards for Innovation at the 2002 ceremony in Washington DC – one for Anser Multiple UAV Real-Time Decentralised Data Fusion, the other for Sharing of High Maturity Practices.

Over 2,785 nominations were submitted for a Chairman's Award, which recognises individuals and teams that have helped the company to improve its processes, practices, technologies and products through innovation.

Emily Smith, Regional Communications Co-ordinator who attended the event in Washington, says: 'Avionics Group managed to beat off the competition yet again, and come away with two Gold awards out of six, proving that we really were the best performing business group in Chairman's Award for Innovation 2002!'

Focus on fun



The company's largest corporate event of 2002 was held at Butlins in Skegness, UK.

National Challenge, the annual BAE SYSTEMS teambuilding event, is a chance for all the divisions to meet for a weekend of fun and games and this year 500 people from 18 divisions and partnerships took part.

Alan Simpson, the National Challenge Coordinator, says: 'The focus was on fun and after raising £45,000 for the National Children's Home (NCH), everyone deserved to have a great time.'

Given the short timescale, the teams used a variety of creative, wacky and commendable fundraising techniques to raise the £100-per-person target, from selling doughnuts to jumping out of planes.

The Shared Services team won the fundraising prize by raising £6,500, and they even donated their prize holiday to raise even more money for charity. C4ISR claimed the second fundraising prize for the most innovative idea with its silver mile of coins. The Eurofighter Typhoon team won for a second year running. In second place was Joint Venture Partner MBDA and C4ISR took third place.

ANSER Multiple UAV Real-time Decentralised Data Fusion

Nominator: David Prowse

Winners: Julia Sutcliffe, Owen Stuart, Paul Riseborough, Bill Belton, Brad Yelland, Jerome Vethecan, Paul Stuart Wishard, Rob Dawkins

In partnership with the University of Sydney, the ANSER team turned a modestly priced research programme into a sophisticated flight system demonstration, the first of its kind in the world, and a key enabler for Network Centric Warfare. The team spent three years developing it, which has wide application potential. Their dedication earned BAE SYSTEMS a leading role in Decentralised Data Fusion (DDF) capability.

Sharing of High Maturity Practices

Nominator: Paul McCormack

Winners: Bill Maddox, Peter Howard, Kelly Gunning, Joel Ange, Randy Varga, Phil Thompson, Mandy Savage, Dave Loydall, Dez Cass

This team challenged tradition by inspiring knowledge transfer of development technologies that enable best practices of high maturity software processes to flow across BAE SYSTEMS and its joint venture partners on both sides of the Atlantic. Their creative approach fosters a world-class software development environment that increases confidence in implementing best practices, reducing time scales for reaping the benefits they bring and saving money by eliminating duplication.

Graduates challenged

The Graduate Conference 2002 was held in November at the Celtic Manor Resort hotel in South Wales, UK.

The theme of the two-day event, attended by 450 graduates and 150 senior managers, was to 'Look Closer' and is part of the Graduate Development Programme.

Each day they covered a different set of topics, from aspects of business awareness to personal development and met many people from across the business.

Presentations and activities allowed the graduates to practice and develop business awareness by applying the company's five core

values. It also helped to break down the perceived communication barrier between graduates and senior management.

Guest speakers at the event included Roger Black, Olympic Silver Medalist in 400 metres running, and Bear Grylls, a British Climber who broke his back at the age of 21 yet overcame his disability and conquered Mount Everest two years later.

Hem Mehta, an Electronic Warfare Division graduate from Stanmore who attended the conference, says: 'The presentations were inspirational and motivational and inspired the graduates to really take control of their future.'

Raising business awareness

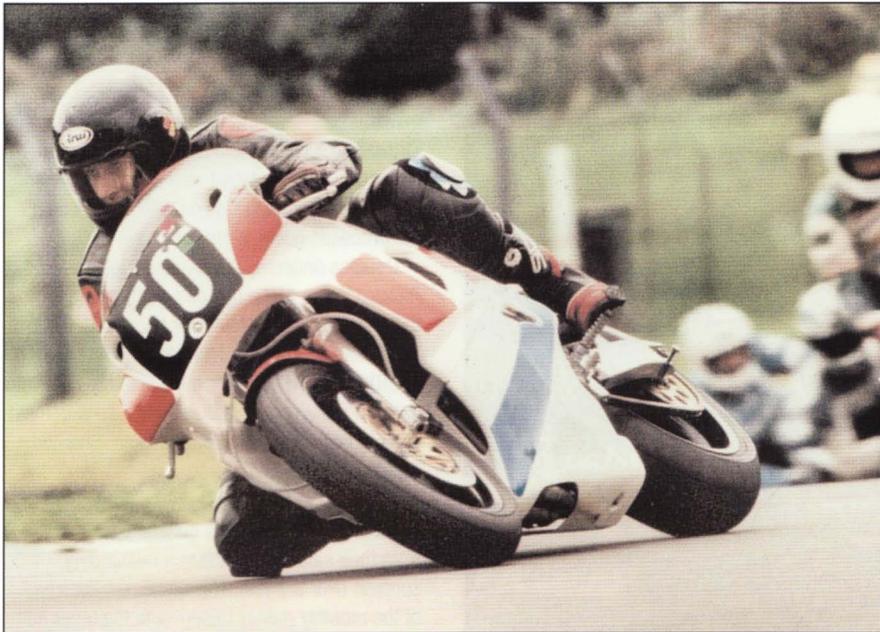
In a company as diverse as BAE SYSTEMS, it is often difficult for employees to appreciate how their work fits into the overall business.

Sensor Systems Division (SSD) may have found a solution to this problem, however, when 30 graduates went on a one-day exchange to Air Systems sites in Warton and Sablesbury. This event was organised for graduates by Karen Hughes, Project Management Graduate, after Andy Brown, Procurement Director, suggested the initial concept.

The main purpose of the event was to show the graduates the range of career prospects available with a global company by increasing

business awareness, sharing good practice and opening up networking opportunities. Paul Holbourn, Capability Management Director, SSD, and Andy supported the event and joined the graduates for the day.

They were shown the Eurofighter Typhoon (Final Assembly), Tornado and Harrier hangers and, at Sablesbury, they had a tour of the Military Airframe Assembly and the Composite and Commercial Assembly. This gave them an awareness of the aircraft components that are currently being produced for Airbus, Eurofighter, Hawk and Tornado.



fantasyF1

Over the past year, Vision's Fantasy Formula One competition has been a resounding success and has seen over 300 of you battle for pole. Sadly though, all good things have to come to an end and our competition is no exception.

Congratulations to the 17 people who came first. Rather than draw one winner out of a hat, we opted to give every one of them a selection of smaller McLaren prizes, including a keyring, mug, mouse mat and pen.

| | |
|----------------------|---------------------|
| Sunny Phagura | Pole Position |
| Peter Chadwick | Team Chadwick |
| Anthony Biscegalia | Cup of Tea? |
| Daniel Creasy | Dan Creasy |
| Steve James | The MOT Failures |
| Andy Gorrie | Hockenheim Harriers |
| Lee Thompson | Thomo's Tossers |
| Christine Kay | Trumon |
| John Wright | Saga Racing |
| Daniel Howard | Sandtrap Café |
| Jon Steels | JD S Rascals |
| Tom Lucas | Van Halla |
| Murray Allen | Big Red Helmet |
| Christopher Anderson | Zen Sandpit |
| John Anderson | Burning Rubber |
| Mark Bishop | Whoosh |
| Stephen Hall | Rusty Bearings |



A Wright fast mover

We all have hobbies which we like to participate in after work but, for one employee at Milton Keynes, a weekend's fun involves reaching break-neck speeds and travelling the length and breadth of the UK.

Jon Wright, a Mechanical Technician in Operations workshops, has been racing motorbikes for 10 years and currently competes in the British Endurance Championships where he is in second place.

'An endurance race can last from two to 24 hours,' says Jon, although it's not as exhausting as it sounds. 'Depending on the size of the race, we sometimes change riders every hour and, like all motorsports, there are pitstops for tyre changes and refuelling.'

He rides a 750cc Yamaha for his team, Red Kite Racing, which is keen to get involved in the World Endurance Championships next year and as a qualifier have competed in two legs of this year's competition. 'The first race was at Brno in the Czech Republic, where I was in 10th position but had to retire due to a crash, and the second race was in Italy, where I finished 26th.

'These races are very competitive and many of the top people are ex-super bike riders,' adds Jon. His last race in the UK was at Snetterton, where he was in second place going into the race, but an engine failure and missing the last race of the season to go to Italy meant the team ended up further down the ranks.

A great North Run

An energetic 61 year old Rochester employee was among 40,000 runners who crossed the finishing line in this year's BUPA Great North Run.

Dave Reeves, Commercial Director, Business Acquisition and Customer Relations, took part in the 13.1-mile half-marathon, which raised more than £8 million last year for charity.

Starting in Newcastle Upon Tyne and finishing in South Shields, Dave achieved a time of 2:06:08, his second best in the four years he has competed and raised money for the National Children's Home (NCH), the BAE SYSTEMS Charity Challenge for 2002. Over 250,000 bottles of water were consumed by the competitors and the oldest finisher was 83, the youngest 17.

COMPETITION: Give us a clue

Fancy yourself as a bit of a supersleuth and reckon you could teach Sherlock Holmes a thing or two? If so, put your powers of observation to the test in Vision's February competition. All you have to do is answer these six questions, the answers to which can be found in the stories in this issue, and you could snap up a snazzy digital camera and accessories. Just one tip though, it might be easier to read all the stories first before attempting the competition! Send all completed entries to Ian Dickson at item Ltd, 103 Kingsway, London, WC2B 6QX, e-mail iddickson@item.co.uk or fax to 0207 405 4768. Entries close Friday 28 February 2003.

- 1: What is the name of the Avionics product featured on pg 11?
- 2: How much does a basic Apache helicopter cost?
- 3: What is the name of the new web-based HR tool on pg 10?
- 4: From what date will the Employee Business Plan be on-line? (Hint – see pg 10)
- 5: What airforce is the T-50 Golden Eagle Jet Trainer being built for?
- 6: What is BAE SYSTEMS' vision? (Hint – see pg 8)

Congratulations to John Anderson from Portsmouth who won the Red Letter Days voucher. The correct answers were: Washington DC, Ottawa, Guatemala, San José, Havana, Amsterdam, Reykjavik, Vienna, Kathmandu and Singapore.

Competition terms and conditions: There is no cash alternative to the prize specified. Entries must be received by the editor of Vision by 5 pm on the date specified. The winner will be notified by the editor of Vision after the closing date. The editor's decision is final.



Charity Challenge



The first BAE SYSTEMS UK Karting Challenge to raise money for charity was held recently and was a wheel-spinning success.

Bringing together 15 sites, 41 employees, two of the fastest cars on the planet and the Army Air Corps, the new event is the latest addition to the Charity Challenge calendar. Avionics' Basildon site came second, pipped at the post by Air Systems' Brough site. Formula One team McLaren Mercedes sponsored the prizes, with a first prize of a day at the McLaren factory and a 200 mph lap in the McLaren F1, the fastest production road car in the world.

The Avionics sites have also been continuing their fundraising and involvement events for the National Children's Home (NCH) and other affiliated charities. Vision takes a look at what's been happening.

Portsmouth

Employees at the Portsmouth site raised £540 for Jeans for Genes with a bucket collection. A raffle was also held to raise funds for a memorial bench and for projects at the school, scout group and football club attended by Richard Bowler, the son of Nick Bowler, an accountant in the Finance department. Richard was just 15 years old when he died very suddenly at football practice from a brain haemorrhage. A total of £794 was raised.

Plymouth

Since September, Plymouth has raised nearly £2,500 for NCH and Cancer Research UK and more than £6,500 since the beginning of 2002.

In the last few months, employees have been involved in activities ranging from a doughnut day to a toner cartridge recycling scheme and a site open day. In the coming months, they have planned an 'It's A Knockout' competition, Pedal for Medal

challenge, Zip Wire Challenge and Belfry golf auction.

The site had a very successful coffee morning, where the new apprentices took on the challenge of making tea and coffee and baking cakes.

Rochester

The site held a 'Blue T-Shirt' day where employees were asked to wear a blue top and donate £1 to Charity Challenge – raising nearly £1,300 in total.

Other fundraising activities include Health and Safety's 'Smile It's Friday' day where people raised £400 by making donations in return for a smiley sticker, Kath Tumber from PCB Manufacturing came to work as a witch on Halloween and raised £255 and the bookshop had a sale week to celebrate its first anniversary, raising £3,834.

A few employees took on the challenge of creating a more child friendly garden at the East Malling Harmony project. In two days, they transformed an uneven lawn and patio into a glorious garden with decking and a covered sandpit.

South Gyle

Employees have been involved in a variety of exciting fundraising events for Charity Challenge in the past few months. A sponsored walk raised



Richard and Douglas take a well deserved rest

£2,000 for local schools for disabled children and a calendar, designed as a montage of children's artwork, will go on sale soon, with all the proceeds going to charity.

Douglas Anderson, an ex-employee, joined Sir Richard Evans and a few other employees as they retraced the footsteps of Michael Caine in *The Italian Job*, driving Minis to Italy, and raising £2,500 for NCH. 'There's even going to be a national raffle for the featured Mini, so watch out for raffle tickets,' says Alan Simpson, Charity Challenge Co-ordinator.

The popular Mandate Draw, where employees buy a raffle ticket and the donation is subtracted from their salaries, has been a resounding success over the year. The winner receives half of the monthly money raised, with the other half going to charity.

Silverknowes and Crewe Toll

The three Edinburgh sites of Silverknowes, Crewe Toll and South Gyle held a grand raffle and raised over £700 for NCH. The lucky winners walked away with an extra day's holiday and a DVD player.

More than £300 was also raised for NCH following a whitewater rafting event, and £1,100 for the Chest, Heart and Stroke Foundation. A separate Jeans for Genes day raised £500 for the popular charity.

Andy Cowan, Charity Challenge Co-ordinator for Silverknowes and Crewe Toll, says: 'The two sites have raised more than £20,000 for NCH this year and nearly £60,000 for other causes. I would like to thank everyone for their support in making Charity Challenge 2002 such a success.'

Stanmore

In the last few months there have been two big Charity Challenge successes at Stanmore – Jeans for Genes day and an involvement day at the Abacus Family Centre in Hillingdon.

Employees paid £1 to wear their jeans to work in aid of the Jeans for Genes charity. Emily Smith, Charity Challenge Co-ordinator, says: 'The support from employees was fantastic, although as it coincided with dress down Friday, there really was no excuse not to take part.' In total the site raised nearly £500.

The involvement day at the Abacus Family Centre in Hillingdon saw a team of nine employees revamping the garden. Despite the terrible weather, they managed to transform the garden by creating a play area for young children, building a small assault course and turning an overgrown sandpit into a beautiful flower bed. A big thank you must go to all those who gave up their time to get involved and made the day such a success.